

ABSTRACT

A mold for injection molding which is comprised of a mold cavity having an inside shape fit to an outside shape of a target product and a temporary space being communicated with the mold cavity and is eliminated before an amount of a molten material being injected to the mold cavity reaches the capacity of the mold cavity.

Said mold cavity has two or more gates that can be controlled of start of injection respectively, and, said temporary space is a ditch 126 which has an eliminator to eliminate itself and is set on the surface of the mold cavity where it connects opening portions of the two gates 111 and 112 that are mutually adjacent, and, the second gate 112 is set to be opened after a melt-front of a molten resin injected from the first gate 111 reaches the position of said second gate 112, a molten resin being progressed in the ditch 126 is pushed and returned to the mold cavity by using the eliminator, and, said eliminator is started when a melt-front of a molten resin from said first gate 111 reaches the position of said second gate 112.

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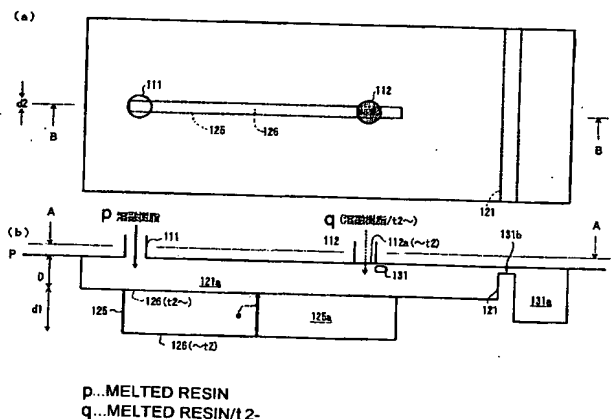
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(54) Title: INJECTION MOLDING DIE, INJECTION MOLDING METHOD, AND WELDLESS MOLDED PRODUCT

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p...MELTED RESIN
q...MELTED RESIN/2-

(57) Abstract: An injection molding die has gates for injecting a melted material to a cavity. In the die, injection timing of a melted material can be set for each gate, and an extra space is formed as an elongate groove portion (126) provided at a place, in a section that connects openings of adjacent gates, on the side projecting from a surface of an objective molded product. The timing of injecting the melted material from each gate is set such that, when the head of flow of the melted material pressed in from one (111) of the adjacent gates and advanced along the groove portion passes the position of the other gate (112), the melted material is started to be pressed in from the other gate (112). The die has eliminating means for eliminating the groove portion by pushing back the melted material in the groove portion (126) into the inside of the cavity. Eliminating operation by the eliminating means is performed after the head of flow of the melted material, pressed in from the one (111) of the adjacent gates and advanced along the groove portion (126), has passed the position of the other gate (112).

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